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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,343	08/23/2004	Walter Otto Repple	752-06US	5920
<div>23716 7590 05/10/2007</div> <div>ANTHONY ASQUITH 28-461 COLUMBIA STREET WEST WATERLOO, ON N2T 2P5 CANADA</div>				
			<div>EXAMINER</div> <div>WEINSTEIN, LEONARD J</div>	
			<div>ART UNIT</div> <div>3746</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>05/10/2007</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/505,343

Applicant(s)

REPPLE ET AL.

Examiner

Leonard J. Weinstein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show element 233, described as a sector 233 in the disclosure. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to

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comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: "e.g."; "i.e."; "maximises"; "characterises"; "recognised." Further applicant is advised to review the use of parentheses, in particular in paragraphs 0051 and 0057.

3. Further the disclosure is objected to because of the following informalities:
 - a. Page 8, ¶0028 – as best understood by the examiner the recitation "As shown in Fig 1, there is a passage..." is referring to subject matter of figure 3.
 - b. Page 9, ¶0034 – as best understood by the examiner "anti-clockwise" should be ---counter clockwise--- for the purpose of clarity.Appropriate correction is required.

Claim Objections

4. Claims 7 objected to because of the following informalities: the recitation of "which coolant can be circulated" is considered to be for the office action on the merits that follows to be ---which coolant can be circulated--- for the purpose of clarity.
- Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claim 31 is rejected under 35 U.S.C. 102(a) as being anticipated by Kim US 2002/0083905. Kim teaches all the limitations as substantially claimed for a coolant apparatus including: an apparatus 20 structured for pumping liquid coolant around the

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coolant circulation circuit (§0014) of an engine (not shown) and associated radiator 30, the apparatus includes a fixed housing 21, having walls which define a pumping-chamber (fig. 2), the apparatus includes a pump impeller 27 having blades, and includes a rotary-driver 22 for rotating the impeller 27, the rotary-driver 23 includes a mechanical connection 23 to the engine (§0015), whereby the rotary impeller 27 is driven at a speed proportional to engine speed, the impeller 27 has a set of primary blades and a set of secondary blades 26, the impeller 27 is so shaped and configured that coolant emerging from the primary blades has such direction and velocity as to be partially deflected away from the entrances of the secondary blades 26, whereby when the impeller 27 is rotating at slow rotational speeds, a relatively large proportion of the flow emerging from the primary blades enters the secondary blades 26 (§0018), but when the impeller 27 is rotating at high speeds, only a relatively small proportion of the flow emerging from the primary blades enters the secondary blades 26, the secondary blades 26 are predominantly radial (fig. 2), the structure of the apparatus is such that the flow has to turn around a promontory 25 in order to enter the secondary blades 26, and the flow is so directed that the faster the flow, the less its inclination to round the promontory 25 and enter the secondary blades 26.

Double Patenting

7. Claims 5, 13-18, and 32 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 3-8 of prior U.S. Patent No. 6,887,046. This is a double patenting rejection.

8. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*,

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245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

9. Claims 1, 8, 12, 20-21, 25-27, and 29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 9, and 16-19 of U.S. Patent No. 6,887,046. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the application and the patent teach the combination set forth in the claims disclosing a coolant pumping apparatus, including a motor driven impeller, the walls of the pumping chamber include a radiator port, for communication between the pumping-chamber and a radiator, and the pump includes a mechanical radiator-port-closer. Further both the instant application and the patent claim swirl-vanes mounted on a structure functioning as a vane orientation guide. In application 10/303108 now U.S. Patent 6,887,046 only a thermal-unit having a fixed-element, a movable-element movable relative to the fixed-element, and a thermal-driver are claimed. The patent claims a mechanical thermal-driver structured to convert movement of a thermal-unit into both simultaneous movement of the radiator-port-closer, in a port-closure mode, and movement of the swirl-vanes, in a vane-orientation mode. In the instant application a swirl-vane-thermal unit with a driver, movable and fixed-element and radiator-port-thermal-unit with a driver, movable and fixed-element are claimed. Claim 5 of the instant application claims these structures as a single unit by combining the radiator-port-closer with the swirl-vanes to have a common thermally-movable-element and a common-driver. Therefore, the invention of U.S. Patent 6,887,046 renders obvious claim 1 of the instant application. Claim 9 of the patent

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claims a thermal-unit coolant-temperature-sensor having two sensors physically separate from one another and measuring the temperature of the radiator-port and the swirl-vane. This renders the movement of the thermal-unit movable-element and the thermal-unit driver responsive to individual conditions of the radiator-port and the swirl-vane. Claims 8, 12, 20-21, 25-27, and 29 of the instant application are dependent on claim one as discussed and substantially duplicates of claims 1-2, 9, and 16-19 of U.S. Patent No. 6,887,046.

Allowable Subject Matter

10. Claims 2-4, 6-7, 9-11, 19, 22-24, 28, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

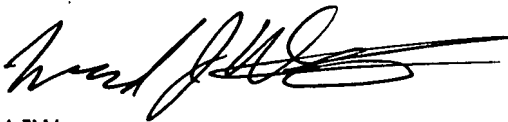
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are cited on form 892 herewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is 571-272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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